

STATEMENT OF BASIS

as required by LAC 33:IX.3109 for a draft permit for which a fact sheet under LAC 33:IX.3111 is not prepared, for draft Louisiana Pollutant Discharge Elimination System Permit No. LA0123072; AI 115847; PER20070004 to discharge to waters of the State of Louisiana as per LAC 33:IX.2311.

The permitting authority for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

- I. THE APPLICANT IS:** American Advanced Technologies, LLC
Houma Oil Recovery Facility
2266 Denley Road
Houma, Louisiana 70363
- II. PREPARED BY:** Todd Franklin
- DATE PREPARED:** September 26, 2007
- III. PERMIT ACTION:** issue LPDES permit LA0123072, AI 115847; PER20070004
- LPDES application received: August 1, 2007
Administrative Completeness Determination: August 1, 2007

IV. FACILITY INFORMATION:

- A. The application is for the discharge of treated oily wastewater, treated sanitary wastewater, and non-process area stormwater from a non-hazardous used oil recovery facility. American Advanced Technologies (AAT) receives, processes, stores, and sells recovered non-hazardous used oil from various used oil shipments including but not limited to oil filters, absorbent pads, spent engine maintenance fluids, vessel bilge waters, etc. The facility will additionally dehydrate, store, and load out tri-ethylene glycol (TEG).

Waste classified as nonhazardous oilfield waste (NOW) or exploration and production waste (E&P waste) shall not be discharged. However, wash water from tanks or vessels containing NOW or E&P waste may be discharged provided the oilfield waste has been drained or removed from the tanks prior to washing and provided that the facility has fulfilled any requirements from the Department of Natural Resources for handling NOW or E&P Waste. Effluent contaminated with chlorinated organic compounds shall not be discharged at this facility.

An NPDES Permit Rating Work Sheet was completed for this facility. The results of the work sheet indicate that the facility should be classified as a minor facility.

- B. The facility is located at 2266 Denley Road in Houma, Terrebonne Parish.
- C. Outfall 001

Discharge Location: Latitude 29° 32' 54" North
Longitude 90° 41' 6" West

Description: treated oily wastewater from various used oil shipments including but not limited to oil filters, absorbents pads, spent engine maintenance fluids, vessel bilge waters, etc.

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The treatment facility consists of oil/water separation, filtration, air floatation, centrifugation, and biological treatment. The wastewater will be batch discharged.

Expected Flow: 0.08 MGD

Outfall 002

Discharge Location: Latitude 29° 32' 55" North
Longitude 90° 41' 3" West

Description: non-process area stormwater from the existing facility

Expected Flow: 61,275 gallons / inch of rainfall

Outfall 003

Discharge Location: Latitude 29° 32' 54" North
Longitude 90° 41' 12" West

Description: non-process area stormwater and uncontaminated secondary containment waters from the TEG and oil/water tank batteries

Expected Flow: 169,607 gallons / inch of rainfall

Outfall 004

Discharge Location: Latitude 29° 32' 51" North
Longitude 90° 40' 59" West

Description: treated sanitary wastewater

The treatment facility consists of a 500 GPD sewage treatment plant with aeration, clarification, and post chlorination

Expected Flow: 15 employees @ 20 GPD each = 300 GPD

V.

RECEIVING WATERS:

The discharge from Outfall 001 flows into Munson Slip; thence into the Houma Navigation Canal in Subsegment 120509 of the Terrebonne Basin. The discharges from Outfall 002, 003, and 004 flow into an unnamed ditch prior to flowing into Munson Slip. Subsegment 120509 is not listed on the 303(d) list of impaired waterbodies.

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The designated uses and degree of support for Subsegment 120509 of the Terrebonne Basin are as indicated in the table below^{1/}:

Overall Degree of Support for Segment	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Full	Full	Full	Full	N/A	Full	N/A	N/A

^{1/}The designated uses and degree of support for Subsegment 120509 of the Terrebonne Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 120509 of the Terrebonne Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS).

This strategy was submitted with a letter dated September 29, 2006, from Watson (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge will be from a proposed facility. LDEQ has consulted with the State Historic Preservation Officer (SHPO) in a letter dated August 1, 2007, to determine whether construction-related activities could potentially affect sites or properties on or eligible for listing on the National Register of Historic Places. SHPO's response letter, dated August 22, 2007, stated that the facility as proposed will have no potential effects.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation
Office of Environmental Services Public Notice Mailing List

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For additional information, contact:

Mr. Todd Franklin
 Permits Division
 Department of Environmental Quality
 Office of Environmental Services
 P. O. Box 4313
 Baton Rouge, Louisiana 70821-4313

IX.

PROPOSED PERMIT LIMITS:

Subsegment 120509, Houma Navigation Canal-Houma to Bayou Pelton, is not listed on LDEQ's Final 2004 303(d) List as impaired, and to date no TMDL's have been established. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by any future TMDLs.

Final Effluent Limits:

OUTFALL 001 - treated oily wastewater from various used oil shipments including but not limited to oil filters, absorbents pads, spent engine maintenance fluids, vessel bilge waters, etc.

The guidelines for the Centralized Waste Treatment Point Source Category are found in 40 CFR 437. This facility falls into this point source category. Specifically, this facility falls under the guidelines in 40 CFR 437.24, new source performance standards for Subpart B- Oils Treatment and Recovery.

The parameters listed in the EPA guidelines were compared to the same parameters used for LDEQ empirical limitations and the more stringent of the two values were screened against corresponding water quality standards. The more stringent values are being applied to Outfall 001.

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg.	Daily Maximum	Basis
BOD ₅	30 mg/l	45 mg/l	Glycol can result in a high BOD ₅ in water; therefore, a limitation is being placed into the permit using Best Professional Judgement (BPJ) based on the possibility of glycol being discharged through the outfall.
TSS	30.6 mg/l	74.1 mg/l	40 CFR 437.24
Oil and Grease	---	15 mg/l	BPJ based on limits imposed on similar discharges.
Total Arsenic ¹	---	0.100 mg/l	LDEQ Empirical Numbers
Total Cadmium ¹	0.009 mg/l	0.021 mg/l	Water Quality Based Limits (WQBL)
Total Chromium ¹	---	0.150 mg/l	LDEQ Empirical Numbers
Total Cobalt	18.8 mg/l	56.4 mg/l	40 CFR 437.24
Total Copper ¹	0.058 mg/l	0.137 mg/l	WQBL

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Effluent Characteristic	Monthly Avg.	Daily Maximum	Basis
Total Lead ¹	0.046 mg/l	0.108 mg/l	WQBL
Total Mercury ¹	0.00004 mg/l	0.00011 mg/l	WQBL
Total Tin	0.165 mg/l	0.335 mg/l	40 CFR 437.24
Total Zinc ¹	0.410	0.974 mg/l	WQBL
Bis (2-ethylhexyl) phthalate ¹	---	0.100 mg/l	LDEQ Empirical Numbers
Butylbenzyl phthalate	0.0887 mg/l	0.100 mg/l	Monthly average is in accordance with 40 CFR 437.24; Daily Maximum is in accordance with LDEQ's Empirical Numbers.
Carbazole	0.276 mg/l	0.598 mg/l	40 CFR 437.24
n-Decane	0.437 mg/l	0.948 mg/l	40 CFR 437.24
Fluoranthene ¹	0.0268 mg/l	0.0537 mg/l	40 CFR 437.24
n-Octadecane	0.302 mg/l	0.589 mg/l	40 CFR 437.24

¹ If any individual analytical test result is less than the minimum quantification level (MQL) listed in Section X of this statement of basis, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements.

Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement.

Other Effluent Limitations:**1) pH**

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits are in accordance with 40 CFR 437.24).

2) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

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OUTFALL 002 – Non-process area stormwater from the existing facility**OUTFALL 003** – Non-process area stormwater and uncontaminated tank secondary containment waters from the TEG and oil/water tank batteries

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Daily Maximum	Basis
Total Organic Carbon (TOC)	50.0 mg/l	BPJ based on limitations imposed on similar stormwater discharges.
Oil & Grease	15.0 mg/l	

Other Effluent Limitations:**1) pH**

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.2645.C.).

2) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

3) Storm Water Pollution Prevention Plan (SWP3) Requirement

The permittee shall prepare, implement, and maintain a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit. The terms and conditions of the SWP3 shall be an enforceable Part of the permit. If the permittee maintains other plans that contain duplicative information, that plan could be incorporated by reference into the SWP3. Examples of these type plans include, but are not limited to: Spill Prevention Control and Countermeasure Plan (SPCC), Best Management Plan (BMP), Response Plans, etc. EPA document 832/R-92-006 (Storm Water Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices) may be used as a guidance and may be obtained by contacting EPA's Water Resource Center at (202) 260-7786 or center.water-resource@epa.gov.

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OUTFALL 004 – Treated Sanitary Wastewater

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg.	Weekly Avg.	Basis
BOD ₅	30 mg/l	45 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy for facilities of this size and type.
TSS	30 mg/l	45 mg/l	

Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD₅ and TSS in terms of concentration.

Other Effluent Limitations:**1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.a, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. MINIMUM QUANTIFICATION LEVELS (MQL) OF VARIOUS TOXIC SUBSTANCES IN THE PERMIT**BASE/NEUTRAL EXTRACTABLE****ORGANIC CHEMICALS**

bis(2-ethylhexyl)phthalate (117-81-7)

fluoranthene (206-44-0)

METALS

arsenic (7440-38-2)

Required MQL (µg/l)

10

10

Required MQL (µg/l)

10

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cadmium (7440-43-9)	1
copper (7550-50-8)	10
lead (7439-92-1)	5
mercury (7439-97-6)	0.2
nickel (7440-02-0)	40
zinc (7440-66-6)	20

XI. PREVIOUS PERMITS:

There have been no previous permits issued to this facility.

XII. ENFORCEMENT AND SURVEILLANCE ACTIONS:**A) Inspections**

There have been no inspections performed at this facility.

B) Compliance and/or Administrative Orders

A review of the files indicates that no enforcement actions have been administered against this facility.

C) DMR Review

Because this is a proposed facility, no DMRs have been submitted.

XIII. ADDITIONAL INFORMATION:

LDEQ reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future. Additional limitations and/or restrictions are based upon water quality studies and can indicate the need for advanced wastewater treatment. Prior to upgrading or expanding this facility, the permittee should contact LDEQ to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

The nearest drinking water intake is located upstream from the discharge point(s); therefore, monitoring for Toxic Substances will not be a requirement of this permit.

The following **Monitoring Requirements, Sample Types, and Frequency of Sampling** are required in this permit.

<u>Outfall 001</u>		<u>Monitoring Requirements</u>	
<u>Effluent Characteristics</u>		<u>Measurement</u>	<u>Sample</u>
		<u>Frequency</u>	<u>Type</u>
Flow		1/batch	Measure
BOD ₅		1/month	Grab
TSS		1/batch	Grab
pH		1/batch	Grab
Oil & Grease		1/batch	Grab
Total Arsenic		1/batch	Grab
Total Cadmium		1/batch	Grab
Total Chromium		1/batch	Grab
Total Cobalt		1/batch	Grab

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Total Copper	1/batch	Grab
Total Lead	1/batch	Grab
Total Mercury	1/batch	Grab
Total Tin	1/batch	Grab
Total Zinc	1/batch	Grab
Bis (2-ethylhexyl) phthalate	1/batch	Grab
Butylbenzyl phthalate	1/batch	Grab
Carbazole	1/batch	Grab
n-Decane	1/batch	Grab
Fluoranthene	1/batch	Grab
n-Octadecane	1/batch	Grab

Outfall 002 and 003Effluent CharacteristicsMonitoring Requirements

	<u>Measurement</u>	<u>Sample</u>
	<u>Frequency</u>	<u>Type</u>
Flow	1/Quarter	Estimate
TOC	1/Quarter	Grab
Oil & Grease	1/Quarter	Grab
pH	1/Quarter	Grab

Outfall 004Effluent CharacteristicsMonitoring Requirements

	<u>Measurement</u>	<u>Sample</u>
	<u>Frequency</u>	<u>Type</u>
Flow	1/6 months	Estimate
BOD ₅	1/6 months	Grab
TSS	1/6 months	Grab
Fecal Coliform	1/6 months	Grab
pH	1/6 months	Grab

XIV. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a new permit for the discharge described in this Statement of Basis.

XV. REFERENCES:

Louisiana Water Quality Management Plan, Vol. 8, "Wasteload Allocations and Discharger Inventory", Louisiana Department of Environmental Quality, 2002.

Louisiana Water Quality Management Plan, Vol. 5, "Water Quality Inventory", Louisiana Department of Environmental Quality, 2002.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards", Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart B - "The LPDES Program", Louisiana Department of Environmental Quality, 2004.

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Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, American Advanced Technologies, LLC, Houma Oil Recovery Facility, August, 2007.